

## REMARKS

This reply is in response to the Office Action mailed on February 12, 2008 in which claims 1-3, 8-10, 13-16, and 27-41 were rejected. Applicant respectfully traverses the rejection and requests reconsideration of the present application based upon the reasons set forth below.

1. Rejection of Claims 1-3, 13-14, 27, 29, 30, and 38 Under 35 U.S.C. § 102(e) as Anticipated by Fehling et al.

On page 2 of the Office Action, the Examiner rejected claims 1-3, 13-14, 27, 29, 30, and 38 under 35 U.S.C. § 102(e) as anticipated by Fehling et al., U.S. Patent No. 6,770,094. The Applicant respectfully traverses the rejection based on Fehling et al. for the reasons that follow.

### Independent Claims 1, 27, 30, and 38

On page 2 of the Office Action, the Examiner asserts that Fehling et al. discloses that “the stabilizing element may be removed from the cage through an opening created by removing at least one of the appendages (24) (if one so desired, as claimed by applicant) a first plate (10) and a second plate (12).” Appellant respectfully asserts that, as stated below, Fehling et al. fails to disclose at least one element of each independent claim 1, 27, 30, and 38.

### First Missing Element

Independent claims 1, 27, 30, and 38 each recite an “artificial disc prosthesis system” comprising, in combination with other elements, an “appendage” that that is “removably attached” or “removably coupled.” Fehling et al. fails to identically disclose a spinal disc prosthesis system including a “removably attached” or “removably coupled” “appendage” as recited in independent claims 1, 27, 30, and 38.

### Second Missing Element

In addition, independent claims 1 and 38 each recite that “the stabilizing element may be removed . . . through an opening created by removing at least one of the appendages.” Independent claim 30 recites that “one or more appendages may be removed to provide an opening into or out of which the stabilizing element may be inserted or extracted.” Independent claim 27 recites “a retaining means for removably retaining the stabilizing means.”

Fehling et al. fails to identically disclose a spinal disc prosthesis system wherein “the stabilizing element may be removed . . . through an opening” as in claims 1 and 38. Fehling et al. also fails to identically disclose a spinal disc prosthesis system wherein “one or more appendages may be removed to provide an opening into or out of which the stabilizing element may be inserted or extracted” as recited in claim 30. In addition, Fehling et al. fails to identically disclose a spinal disc prosthesis system having an element for “removably retaining the stabilizing means” as recited in claim 27.

### Discussion

In particular, Fehling et al. does not disclose the removal of “protective coating 24” in order to remove the “spring means” from the space between discs 10 and 12. In fact, Fehling et al. teaches that the “protective coating 24” is “wound up on” and “sealed and mounted” on “the cranial disc 10 and the caudal disc 12” to create an impermeable barrier to “prevent tissue from growing into the intervertebral disc prosthesis.” See col. 4, lines 1-11. The removal of “protective coating 24” would likely inhibit it from acting to “prevent tissue from growing into the intervertebral disc prosthesis.” Fehling et al. discloses nothing about “protective coating 24” being removably attached, and Fehling et al. discloses nothing about the removal of the “spring means.”

Accordingly, Applicant respectfully asserts that independent claims 1, 27, 30, and 38 and corresponding dependent claims 2, 3, 13-14, and 29 are not anticipated under 35 U.S.C. § 102(c).

### Dependent Claim 3

Dependent claim 3 further recites that “the stabilizing element is a fusion prosthesis.” A fusion prosthesis is a type of stabilizing element used to fuse together the vertebrae adjacent to a spinal disc prosthesis system during an arthrodesis procedure. See Specification at page 2, lines 22-24 and page 3, lines 10-14 and lines 19-20. Fehling et al. does not identically disclose a “fusion prosthesis” as recited in claim 3. Fehling et al. only discloses a disc prosthesis designed to provide “good mobility of the vertebrae” and “soft axial shock absorption.” See col. 1, lines 44-47 and col. 2, lines 21-24. Appellant respectfully asserts that Fehling et al. fails to disclose any element designed to fuse adjacent vertebrae thereby preventing significant motion between adjacent vertebrae. Accordingly, claim 3 is further patentable over Fehling et al.

### Dependent Claim 29

Claim 29, depending from claim 1, recites that “the first and second bases are ring-shaped.” See Specification at page 14, lines 6-7 and Figs. 1a and 1b (“FIG. 1a shows a top view of a scaffold base 100 composes of a ring 102 which defines a central opening 104”). Appellant defines a structure as ring-shaped when “it has a peripheral section which defines a central opening.” See Specification at page 4, lines 19-20. Fehling et al. does not identically disclose either “cranial disc 10” or “caudal disc 12” as being “ring-shaped.” Fehling et al. only states that “the cross-section of the discs 10 and 12 substantially corresponds to the form of the natural intervertebral disc and vertebra element.” See col. 2, lines 58-61. Accordingly, claim 29 is further patentable over Fehling et al.

## 2. Rejection of Claim 8 under 35 U.S.C. § 103(a) Based Upon Fehling et al. in View of Baumgartner

On page 3 of the Office Action, the Examiner rejected claim 8 under 35 U.S.C. § 103(a) as unpatentable over Fehling et al. in view of Baumgartner, U.S. Patent No. 5,370,697. As discussed above, Fehling et al. does not disclose “at least one appendage removably attached” as

recited in independent claim 1. Baumgartner does not remedy the deficiencies of Fehling et al. Baumgartner discloses an “intervertebral disk member 1” having “reinforced edge parts 16” and “stops 17.” See col. 2, lines 52, 65-67, and Fig. 1a. As such, Baumgartner does not appear to disclose “at least one appendage removably attached” as recited in independent claim 1. Accordingly, claim 8 which depends from independent claim 1, is presented for reconsideration and allowance.

3. Rejection of Claims 9 and 10 Under 35 U.S.C. § 103(a) Based Upon Fehling et al. in View of Baumgartner in View of Parsons et al.

On pages 3-4 of the Office Action, the Examiner rejected claims 9 and 10 under 35 U.S.C. § 103(a) as unpatentable over Fehling et al. in view of Baumgartner in view of Parsons et al., U.S. Patent No. 5,545,229. As discussed above, neither Fehling et al. nor Baumgartner discloses “at least one appendage removably attached” as recited in independent claim 1. Parsons et al. does not remedy the deficiencies of Fehling et al. and Baumgartner. Parsons et al. discloses an “intervertebral spacer” having a “central core 2” and “endplates 8 and 10.” See col. 4, lines 7-14, and Fig. 1. As such, Parsons et al. does not appear to disclose “at least one appendage removably attached” as recited in independent claim 1. Accordingly, claims 9 and 10 which depend from independent claim 1, are presented for reconsideration and allowance.

4. Rejection of Claims 15, 16, 27, 28, 31, 32, 33, and 39-41 under 35 U.S.C. § 103(a) Based Upon Fehling et al. in View of Richelsoph

On pages 4-5 of the Office Action, the Examiner rejected claims 15, 16, 27, 28, 31, 32, 33, and 39-41 under 35 U.S.C. § 103(a) as unpatentable over Fehling et al. in view of Richelsoph, U.S. Patent No. 7,105,024. The Applicant respectfully traverses the rejection based upon Fehling et al. in view of Richelsoph for the reasons that follow.

Independent Claims 27 and 33

Independent claim 27 recites an “artificial disc prosthesis system” comprising, in combination with other elements, “a stabilizing means” and “retaining means ... compris[ing] a removably attached appendage.” Independent claim 33 recites an “artificial disc prosthesis system” comprising, in combination with other elements, “a stabilizing element” and “a scaffold assembly comprising ... at least two appendages removably coupled to the scaffold assembly.” As discussed below, Fehling et al. alone or in any proper combination with Richelsoph does not disclose, teach, or suggest one or more of the elements recited in independent claims 27 and 33.

For the reasons discussed above, Fehling et al. does not disclose, teach, or suggest a spinal disc prosthesis system including a “removably attached” or “removably coupled” “appendage,” as recited in independent claims 27 and 33. As discussed below, Richelsoph does not disclose, teach, or suggest a spinal disc prosthesis system including a “removably attached” or “removably coupled” “appendage,” as recited in independent claims 27 and 33.

Richelsoph discloses an “artificial intervertebral disc” having “housing members 12, 14” and “load sharing pads generally shown at 31 and specifically indicated as pads 32 and 34” (identified as “an appendage” by the Examiner). See col. 4, lines 7, lines 48-49, and Fig. 1. The “loading sharing pads 32 and 34” of Richelsoph “are elastic for allowing relative twisting movement between the housing members 12, 14” and act to share “absorption of compressive loads with the bearing surfaces 24, 25.” See col. 5, lines 61-63 and col. 4, lines 51-52. In addition, the compressible pad members of Richelsoph “allow for in situ replacement of the pad members 31 so as to custom select the flexibility or elasticity of the members” so that “the pad members 31 are custom designed for the individual environment of the intervertebral space into which the device is being placed.” See col. 6, line 66 to col. 7, line 3 (emphasis added). Further, Richelsoph discloses that “[i]t is preferable to permanently adhere the pad members 31 to the housing members 12’, 14’ by use of mechanical mechanisms and/or various adhesives.” See col. 8, lines 3-6.

As such, the “load sharing pads 32 and 34” are a component of the stabilizing element or stabilizing means of the “artificial intervertebral disc” of Richelsoph. Therefore, Richelsoph fails to disclose, teach, or suggest “a retaining means for removably retaining the stabilizing means ... compris[ing] a removably attached appendage,” as recited in independent claim 27. Richelsoph also fails to disclose “a scaffold assembly comprising ... at least two appendages removably coupled to the scaffold assembly,” as recited in independent claim 33.

Accordingly, Applicant respectfully asserts that independent claims 27 and 33 and corresponding dependent claims 28, 29, and 34-37 would not have been obvious in view of Fehling et al. and/or Richelsoph under 35 U.S.C. § 103(a).

#### Dependent Claims 15 and 16

For the reasons discussed above, neither Fehling et al. nor Richelsoph discloses “a scaffold assembly comprising ... at least one appendage removably attached” as recited in independent claim 1. Accordingly, claims 15 and 16, which depend from independent claim 1, are presented for reconsideration and allowance.

#### Dependent Claim 28

For the reasons discussed above, neither Fehling et al. nor Richelsoph discloses “a retaining means for removably retaining the stabilizing means ... compris[ing] a removably attached appendage,” as recited in independent claim 27. Accordingly, claim 28, which depends from independent claim 27, is presented for reconsideration and allowance.

#### Dependent Claims 31 and 32

For the reasons discussed above, neither Fehling et al. nor Richelsoph discloses “a scaffold assembly comprising ... one or more appendages removably coupled to the scaffold assembly,” as recited in independent claim 30. Accordingly, claims 31 and 32, which depend from independent claim 30, are presented for reconsideration and allowance.

Dependent Claims 39-41

For the reasons discussed above, neither Fehling et al. nor Richelsoph discloses “a scaffold assembly ... comprising at least one removably attached appendage,” as recited in independent claim 38. Accordingly, claims 39-41, which depend from independent claim 38, are presented for reconsideration and allowance.

5. Rejection of Claims 34-37 under 35 U.S.C. § 103(a) Based Upon Fehling et al. in View of Richelsoph in View of Baumgartner

On page 5 of the Office Action the Examiner rejected claims 34-37 under 35 U.S.C. § 103(a) as unpatentable over Fehling et al. in view of Richelsoph in view of Baumgartner. As discussed above, neither Fehling et al., nor Richelsoph, nor Baumgartner disclose “at least two appendages removably coupled to the scaffold assembly” as recited in independent claim 33. Accordingly, claims 34-37, which depend from independent claim 33, are presented for reconsideration and allowance.

6. Conclusion

Claims 1-3, 8-16, 27-41 are pending in the present application. Of these claims, claims 11 and 12 have been withdrawn from consideration. Applicant respectfully traverses the rejection and requests reconsideration of the present application based upon the reasons set forth above.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid

amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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